

EXHIBIT 1

EXPERT REPORT

of

MICHAEL E. LEVINE

in re:

Brady *et. al.* v. Air Line Pilots Association, *et. al*

Civil Action No. 02-cv-02917-JEI (D.N.J.)

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I. Introduction

A. Qualifications

My unusual combination of experiences has involved me in the world of air transportation and its regulation as a senior airline executive, an academic and a government official. My entire professional life has been devoted to the study, regulation and management of air transport.

I hold a bachelor's degree in philosophy from Reed College and a law degree from Yale. I did graduate study in economics at Yale and the University of Chicago, where I had an appointment as a research fellow under the supervision of Professor Ronald H. Coase, who later received the Nobel Prize in Economics.

My writings have served as a foundation for U.S. air transport policy. As a law student, I wrote a prizewinning and widely-cited article that was the first of the modern era to urge the economic deregulation of the U.S. airline industry. This article ultimately brought me to the attention of both Congress and regulatory agencies. I helped script the Hearings on Civil Aeronautics Board [CAB] Practices and Procedures of the Subcommittee on Administrative Practices and Procedures of the Senate Judiciary Committee of 1975 (the Kennedy Hearings), which ultimately led to the Airline Deregulation Act of 1978.

The article also brought me to the attention of Alfred E. Kahn, who quoted extensively from my work on airline regulation in his classic and still authoritative treatise, *The Economics of Regulation*. When Jimmy Carter appointed him Chairman of the Civil Aeronautics Board with a mandate to "reform" regulation of the airline industry, Kahn reorganized the Board's staff to put together virtually all of its substantive activity under one "superbureau" and invited me to Washington to run it. In 1978 and 1979, I served as General Director, International and Domestic Aviation for the Civil Aeronautics Board. In that position, I was centrally involved in inventing and implementing most of the techniques used to deregulate the industry, which were ultimately enshrined in or permitted by the Airline Deregulation Act of 1978 and the International Air Transportation Competition Act of 1979.

As an airline executive, I served at Continental and Northwest as an Executive Vice President reporting to the CEO. I also was President and CEO of New York Air, guiding that post-deregulation airline to its first profit. In my most recent industry position at Northwest Airlines, I was responsible for all marketing, pricing, sales and

route and fleet planning activities, for its international alliances, for operating its overseas establishments, and for information technology, reservations and electronic distribution. I was principally responsible for the overhaul of Northwest's domestic and international route systems to concentrate on its hubs at Detroit, Minneapolis, Memphis and Japan, for its fleet strategy including the unorthodox decision to modify and refurbish its DC-9 fleet, saving the company about \$3 billion in net present value, and for developing and executing Northwest's pathbreaking alliance strategy, including its joint venture with KLM. I have also served as a consultant to Continental, Delta, Eastern and Northwest.

In each of these positions, one of my principal tasks was to assess the strengths and weaknesses of each airline's competitive position, to evaluate its ultimate viability, and to recommend and/or implement changes designed to ensure its survival. In all of my executive positions, those changes resulted in the airline's survival and subsequent success. That experience is an important part of the background that I have called upon in assessing the continued viability of TWA.

Since 2005, I have held an appointment as Distinguished Research Scholar and Senior Lecturer at New York University School of Law. Prior to that (2002-2005), I was Professor (Adjunct) of Law at Yale, a half-time appointment. I held a similar position at Harvard for three years (1999-2002) after leaving Northwest. I have previously served as Dean of Yale University's School of Management and held endowed professorial chairs at Caltech, Yale and USC. I have been an academic visitor at the London School of Economics and Duke University. I have published numerous scholarly articles and a variety of informal opinion pieces in such publications as the *New York Times*, *The Wall Street Journal* and *The Financial Times*. My research has included pioneering work on airline deregulation, on the application of market mechanisms to airport congestion, on committees and agendas and on the origins of regulation and the behavior of regulatory agencies.

I also was appointed by the President in 1987 to serve as a member of the Aviation Safety Commission. Congress established that commission to evaluate the Government's aviation safety and air traffic control activities and to recommend government efforts to ensure aviation safety in a deregulated industry. I served as well on a National Academy of Sciences committee, which reported in 1991 on airline service and safety since deregulation.

In addition to recognition for my student work, I was named among the ten most influential pioneers in the history of commercial aviation by *Airfinance Journal*, received the Transportation Research Foundation's Distinguished Lifetime Transportation Researcher award for lifetime achievement in 2000, and was the recipient of the Civil Aeronautics Board's Distinguished Service Award in 1979.

I have been a consultant to numerous private and public organizations and have served on the Boards of the UNR Asbestos-Disease Claims Trust, which I currently chair, and the Institut du Transport Aerien in Paris, as well as educational and foundation boards. In the past, I have served as a director of several public corporations.

My *Curriculum Vitae* is attached as Exhibit One.

B. Overview of Assignment

I have been asked by counsel for the Air Line Pilots Association, International (ALPA) to assess the condition and continuing viability of TWA at the time it contracted with American for an asset acquisition in bankruptcy and to assess the alternatives available to it. Counsel for ALPA has asked me to review and evaluate the opinions set forth in the reports and deposition testimony of plaintiffs' proposed experts (Rikk Salamat and Henry Farber) to the extent they relate to TWA's financial condition, strategic position and future financial prospects, and thus to the pre-transaction career prospects of the former TWA pilots. In preparing my report, I have considered a variety of materials, as set forth in Exhibit Two.

I am being compensated for my work in this matter at my customary hourly rate of \$1500/hour. My compensation is not in any way contingent on the opinions I express or on the outcome of this litigation.

C. Summary of Opinions

The opinion I will present is straightforward: Plaintiffs' experts assume that TWA was sufficiently viable to survive a period during which its pilots could have bargained for better seniority treatment as part of the acquisition of its assets by American Airlines. As a necessary corollary, plaintiffs' experts also assume that TWA pilots could have threatened to interfere with the closing of the transaction in order to compel American Airlines to force its own pilots to offer a better seniority integration for the TWA pilots than what American and the APA ultimately agreed to in Supplement CC. Both of those assumptions are incorrect and reflect profound

misunderstandings of both TWA's and American's commercial positions and histories. TWA was irremediably structurally unsound and on the verge of liquidation when it filed for bankruptcy and required American's debtor-in-possession (DIP) financing to continue operating. American had a history of difficult labor relations with its pilots and was suffering competitively from high costs. It had recently experienced very expensive disruption from the resulting labor dispute after it had made a much smaller acquisition without the consent and approval of its pilots. As a result, American was not willing to risk an even more expensive dispute from a much larger transaction.

I will demonstrate in detail:

1. That TWA was commercially unsound as a structural matter and doomed to failure. A single-hub airline of TWA's size based in a city with St. Louis's level of size and economic activity cannot survive in competition with multi-hub airlines with hubs in larger, more-active cities, especially when local traffic from its hub is subject to extensive low-fare competition from low-cost-carriers (LCCs).

a. Aircraft are expensive to fly, but the cost per passenger declines substantially as aircraft size increases, so airlines tend to use relatively large aircraft. Few markets are dense enough to support their use to offer frequent service to passengers from their most preferred airports at their most preferred times.

b. Airlines survive by actively assembling groups of travelers able to fill these large planes to achieve acceptable unit costs. They can do this by offering very low fares to induce travelers to adapt their travel plans to the airline's schedule or by using hubs to offer groups of travelers more convenient travel choices than would be available to them without the hub. To be successful, a hub must combine nonstop service from the hub at relatively high fares with connecting traffic attracted by a wider choice of flights and routings to, from and through the hub.

c. TWA's single-hub structure, based at a city that did not have enough economic activity to support a large hub and that had a powerful and extensive LCC presence, was not viable, particularly in the face of competition from multihub competitors. The reality that TWA had ceased to be a viable airline is demonstrated by economics and supported by numerous historic examples of failed airline hubs.

d. Because TWA was structurally unsound, it was experiencing a liquidity crisis that would have forced a shutdown and liquidation of TWA's assets.

e. TWA's efforts to remedy its liquidity crisis on a standalone basis were doomed and no other acquisition that would have preserved TWA's flying—and thus the jobs of its pilots—was a credible alternative.

2. American's offer to acquire the assets of TWA in bankruptcy was the only option open to TWA that would have allowed it to continue operations for more than a short period of time.

3. American's condition that the TWA pilots waive their contractual rights to an arbitration of their seniority rights in the event of a merger reflected American's labor relations and commercial realities. The waiver requirement was not subject to modification by aggressive negotiating tactics on the part of TWA's pilots, including threats to delay or interfere with the transaction.

a. American's pilots were not enthusiastic about the TWA acquisition and were not inclined to significantly modify their rights to consent to any acquisition that would affect their scope and seniority rights.

b. American's historical experiences with its pilots—and especially with its then-recent acquisition of Reno Air in 1999—had been so disruptive and expensive that management was determined not to repeat the experience by going ahead with the acquisition without the consent of its pilots. Moreover, in view of its continuing cost problems and the high costs of the transaction, American did not believe that it could afford to “buy” pilot consent to a seniority integration more generous to TWA pilots than what American Airlines and the APA ultimately agreed to in Supplement CC.

3. In conclusion, TWA's pilots had very poor prospects at the time of the acquisition and the American pilots knew it, so there was no prospect of improving them through different negotiating tactics and the TWA pilots therefore had little if any choice but to accept the American pilots' offer.

D. Summary of Plaintiffs' Expert Opinions

TWA's assets were acquired by American Airlines as part of a bankruptcy in the first half of 2001. At the time, TWA was facing liquidation. American provided DIP financing to keep TWA operating while the acquisition was completed and made

various commitments to TWA stakeholders, including job and compensation commitments to its labor unions. As a condition of that acquisition, American required TWA pilots represented by ALPA to waive their contractual rights with TWA to an arbitrated seniority integration in the event of a merger or acquisition, and the pilots consented to that waiver.

At bottom, the TWA pilots' damages theory rests on the assumption that more aggressive representation by ALPA that threatened to hold up the transaction or perhaps even a strike would have produced an outcome more favorable to them with respect to the merger of their seniority list with American's. Plaintiffs' experts advance no support for this assumption.

In his report, Salamat writes: "Given that the jury found that ALPA's violation caused harm to the TWA pilots, it must be taken as a basic truth that had ALPA been effective in representing the TWA pilots a better list would have been obtained."¹ To the extent he explains it, Mr. Salamat alleges that the TWA pilots could have obtained more favorable treatment in part by using the leverage that would have come from refusing to waive their scope clause, which contained mandatory arbitration provisions using the so-called Allegheny-Mohawk principles favored by ALPA, or by delaying the hearing, or by threatening to strike if the Section 1113 motion were granted, thus threatening to hold up or interfere with the acquisition. But under questioning, he conceded that he simply assumed that this kind of integration would have occurred and then tried to imagine what it might have been, assigning arbitrary weights to various factors and quantifying them arbitrarily.²

Mr. Salamat further imagines that threatening to disrupt the transaction would have motivated either American or its pilots' union (the APA) to improve the seniority integration offer that they ultimately put on the table. There is no evidence to support this view. In fact, the evidence suggests that American's pilots were divided over whether to make even this offer and that American opposed paying to persuade them to do so.

¹ Rikk M.T. Salamat, *Damages in Brady et. al. vs. The Air Line Pilots Association*, (Salamat Report), p. 13.

² VIDEOTAPED DEPOSITION OF RIKK M.T. SLAMAT, *Patrick Brady, et. al. Plaintiffs v. Air Line Pilots Association International, Defendant*, Thursday, January 29, 2013 (Salamat Deposition), p.55 line 20 through p.59 line 16, p.76 lines 8-13.

Professor Farber's testimony builds a model that assigns a critical role to whether or not TWA was in imminent danger of ceasing operations and his analysis assumes that it was not in that position. At his deposition, Professor Farber conceded that if TWA *were* in imminent danger of ceasing operations, he would have to revisit his analysis.³ He also conceded that he did not review any of the overwhelming evidence demonstrating that TWA was in fact in that position.⁴

In short, Mr. Salamat is wrong and Professor Farber's analysis is irrelevant because it assumes away the answer to the question it identifies as critical.⁵ Professor Farber distinguishes TWA's situation from that of Lynx, a failed carrier case that he concedes would not produce the seniority list that he arrives at, without reviewing the evidence and considering that, like Lynx, TWA had no prospects for continuing operation without the acquisition.

All this is apparently irrelevant in Mr. Salamat's analysis. While he admitted that "[T]he issue that comes up in every seniority arbitration ... [is] what people's expectations are pre-transaction",⁶ he then further admitted that "I made no - no assumption about whether TWA was a failing carrier."⁷ It is virtually impossible to imagine a scenario in which the prospect of TWA's liquidation did not affect the expectations of TWA's pilots, as well as their bargaining leverage.

II. TWA Was Structurally Unsound and No Longer Viable as a Standalone Airline

TWA was simply structurally unsound. St. Louis (STL) was too small and too weak an economic environment to support a profitable single hub in competition with other network airlines with multiple hubs in larger and more economically active metropolitan areas. These hubs allowed competing network airlines to offer more frequent service, and thus to capture a greater share of connecting traffic. To make matters worse, in its St. Louis hub, TWA faced intense competition from an LCC, Southwest Airlines (WN), for local traffic. How had it evolved into this posture?

³ VIDEOTAPED DEPOSITION OF HENRY FARBER, PATRICK BRADY, et al. Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant, Tuesday January 22, 2013 (Farber Deposition), p.138 line 25 through p.139 line 8.

⁴ Farber Deposition Jan 22, p.74 line 25 through p.75 line 1, p.79 line 8 through p.81 line 13.

⁵ Salamat Deposition Jan 31, p.98 lines 17-18.

⁶ Salamat Deposition Jan 31, p.58 lines 3-5.

⁷ Salamat Deposition Jan 31, p.98 lines 17-18.

A. Historical Overview of TWA's Competitive Position

TWA was like a failing aristocratic family with estates that it couldn't afford to staff and keep up that first sells various outbuildings, then the main house, then moves to a dependency and finally sells the furniture and artworks and mortgages the tenant revenues.⁸ Under regulation, TWA was one of the "Big Four" airlines (with United, American and Eastern). Its unique asset was that it was the only airline licensed to fly both domestically and intercontinentally to Europe and the Middle East. Although it had a glamorous history, including ownership by Howard Hughes and movie star customers, even under regulation it struggled to maintain profitability, because its competitive presence in any particular market was usually smaller than that of its competitors. This was the case whether that competitor was American in transcontinental service to California, United and American at Chicago, or Pan Am and American in New York. Even before deregulation, TWA was only the strongest airline in St. Louis and Kansas City (hardly major opportunities) and had some success competing with Pan American on service to the Iberian Peninsula and the Mediterranean, as well as to a few unique points in the Middle East.

When domestic deregulation, with its complementary Open Skies international policy that put U.S. domestic competitors in as many international markets as possible, came in the late 1970's and early 80's, TWA struggled to find a role for itself. It could not build on a historically strong position in any of its domestic markets and had only weak hubs designed to support international flying. For a while, it succeeded in expanding at New York-JFK (JFK), its international linchpin, feeding its transatlantic flights both at JFK and at small hubs in Europe. But this flying was unprofitable due to its high costs and relatively weak New York domestic market position. And over time, American used its stronger position in the New York market to achieve dominance over TWA at JFK (in part, using assets it acquired from TWA as TWA began to waste away). Ultimately, both TWA and Pan Am lost their struggles to maintain their roles as America's most important international airlines as domestic airline giants began to take advantage of Open Skies opportunities to combine their strong domestic route systems with international opportunities.

⁸ As William Compton, TWA's last CEO, explained, to stay alive, TWA "kept burning the furniture. And finally [it] ran out of furniture." VIDEOTAPED DEPOSITION OF WILLIAM COMPTON, PATRICK BRADY, et al, Plaintiffs, - vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant, Friday, January 18, 2013 (Compton Deposition), p.102 lines 5-6.

In the early days of deregulation (the late 1970's and early 80's), TWA also was driven out of Chicago by United and American. TWA needed to build a domestic system around viable hubs to compete with other network airlines that were establishing multiple strong hubs. Unfortunately, it chose to build a system with a single mid-continent domestic hub at STL, less congested than Chicago, but far less promising. This was a critical and ultimately fatal decision. To facilitate this development, it acquired Ozark Airlines, a regional carrier based at St. Louis, in 1986. Over time, St. Louis faded as a center for corporate headquarters and it also ultimately attracted Southwest Airlines, a pioneering LCC that grew rapidly over the years.

The combination of small absolute hub city size and the need to share traffic in its markets with Southwest limited TWA's ability to use aircraft of a size large enough to optimize costs. And the single hub location limited TWA's ability to offer competitive convenience in scheduling and routings to connecting traffic, thus requiring it to offer lower fares than its major hub competitors to fill its planes.

Although TWA had enjoyed some temporary success in gaining transatlantic market share in the 1980s, its financial performance, never strong, worsened considerably. In the mid-1980s, this poor financial performance made it vulnerable to takeover. TWA was acquired by Carl Icahn, who sold off many of its assets as part of a financial restructuring, including all of its London Heathrow authority, including such routes as Chicago-London (worth far more to American, with its extensive hub at Chicago, than to TWA) and New York-London (also worth more to American because of its greater New York presence) to fund the acquisition. Icahn also attempted to restructure the airline by reducing its operating costs. These sales destroyed any hope of profitability at JFK. Ultimately, this strategy failed. The debt load Icahn placed on the airline was a big problem, but the poor operating results driven by its structural weaknesses were the more profound handicap. For example, TWA was unable in the 1980's to adjust its revenues upward to the same degree as its competitors to compensate for increases in the price of fuel.⁹ This same pattern would be repeated in the 1990's.

In the process of restructuring through its second bankruptcy filing in 1995, TWA mortgaged its future revenues by relieving itself of its pension obligations and by

⁹ Airlines for America for US Industry <http://www.airlines.org/Pages/Annual-Results-U.S.-Airlines.aspx> (Airlines for America); SEC 10-K filings for TWA figure.

selling to Icahn the right to offer an unlimited number of tickets at a 40-55% discount (the “Karabu” deal). The Karabu deal undermined TWA’s efforts at price discrimination (what the industry calls “revenue management”) because Karabu could (and did) offer the same itinerary as TWA for a reduced fare. TWA estimated the annual earnings impact of the “Karabu” deal at \$50 -150 million.¹⁰

B. TWA’s Inability To Survive with a Single Hub in St. Louis

To better understand why the decision to have a single hub in St. Louis was fatal, it helps to understand the transportation and competitive function of airline hubs.¹¹

There are very few airport pairs in which enough passengers want to travel between the same airports at the same time to allow profitably filling an airplane solely with passengers traveling on the same local itinerary, and fewer still with sufficient density to allow frequent flights at a choice of times. Examples of airport pairs with sufficient local passenger volumes to permit local frequent flights with minimal compromises in passenger convenience or cost include Dallas-Houston, LaGuardia-Reagan National, and Los Angeles-San Francisco. But even in the densest markets, service frequency and passenger airport choice can be enhanced by adding to local nonstop flights passengers who are prepared to use the flights as part of a more complex itinerary.

To address this route density problem, airlines organize hubs. The hub is a kind of factory that combines passenger itineraries to offer passengers in markets too thin to support competitively frequent nonstop service on a standalone basis (most markets) the opportunity to fly between their preferred airports at more convenient times. Hubs manufacture connections by creating a focus airport (the “hub”) at which passengers originating at a variety of points including the hub can be combined with other passengers bound for the same destination.

The convenience created for so-called “spoke” customers, those originating from somewhere other than the hub, is a function of the frequency and timing of flights offered to them as a result of hub connections, as well as the number of airport pairs offered. This, in turn, is a function of the size and number of hubs that a hubbing airline can use to offer one-stop opportunities. The larger the hub, the more cities

¹⁰ VIDEOTAPED DEPOSITION OF NON-PARTY WITNESS MICHAEL PALUMBO, PATRICK BRADY, et al., Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant, Monday, January 21, 2013 (Palumbo Deposition), p.24, lines 1-6.

¹¹ M. E. Levine, “Airline Competition in Deregulated Markets: Theory, Firm Strategy and Public Policy”, *Yale Journal On Regulation*, Vol. 4, Spring 1987, pp. 442-444.

and frequencies it can support and the more choices it can offer spoke customers. The more options available to one-stop or connecting passengers, the more of them can be assembled to fill any departure from a spoke to a hub. In addition, multiple hubs allow the spoke passengers even more choice as multiple departures scheduled to multiple hubs are coordinated to enhance frequency and as additional airport pairs become geographically feasible. TWA's single STL hub was too small to offer enough options to compete with airlines with multiple larger hubs that could offer passengers more flights on more direct routings. As a result, TWA was at a competitive disadvantage.

Since journeys are not produced individually, but only in aircraft shared with other passengers, the real cost incurred in producing any particular passenger journey in a hub-and-spoke system is an arbitrary share of producing the whole hub-and-spoke schedule. Every day, an airline incurs the cost of flying all the flights that create all these connections. In fact, since it has to publish schedules in advance and passengers won't fly an airline that repeatedly reneges on its schedule commitments, the airline in practice has to incur the costs of flying several months of schedules to be competitive at all. And since aircraft are provided on a relatively long-term basis (even leased aircraft are typically committed for at least year, and usually many more in order to get competitive lease rates) and employees must be trained and employed on a regular basis, aggregate costs are relatively fixed over long periods of time, although schedule revisions can be made using the same inputs about 90 days in advance.

A cruel twist of the airline business is that these fixed costs are mostly cash costs. While owned aircraft may represent a one-time investment, they are typically financed with monthly payments, as are leased aircraft. Even worse, fuel is paid for on a daily basis and labor on a weekly or bimonthly basis, along with non-aircraft rentals, many of which are paid monthly. While aircraft may often be retained while the airline delays payments and renegotiates with lenders or lessors, fuel suppliers will put the airline on a cash-on-delivery basis if there is any doubt about its ability to pay for the fuel. And workers won't work without paychecks. Accordingly, the "fixed" cost of the schedule of any airline – including TWA – is made up very substantially of short-term cash costs that must be met in order to operate. Indeed, fuel and labor costs alone typically account for more than 50% of a large airline's total costs.

The relevance of the fact that costs are incurred in common for multiple passengers and itineraries on a flight and across multiple flights is that they must somehow be recovered (through fares) among the passengers. Any division of these common costs is essentially arbitrary, but the division that maximizes both revenue and output is achieved by charging those passengers who most value the service higher fares than those who are more sensitive to price changes. Those who value the service most are said to have lower price elasticity of demand, which is a measure of their willingness to continue buying the same amount as the price changes. Historically, this means that passengers originating at the hub airport get higher quality (nonstop) service and tend to pay higher fares. By contrast, passengers on spoke-to-spoke itineraries get a wider choice of airlines, flights and destinations and lower fares. This is true even in hub markets where there is competition from another hubbing carrier for the same reason that competitive meat suppliers charge more for steak than hamburger¹².

The viability of a hub in competition with other hubs depends on having a significant percentage of traffic and revenue coming from passengers originating at or destined to the hub ("hub O&D" passengers). Such passengers "richen" the revenue mix and enable the airline to price-discriminate by charging those passengers comparatively more than "spoke" passengers receiving lower-value services, who also benefit from competition with other spoke service providers of the same itinerary. Viability also depends on having substantial enough absolute volume of hub O&D traffic to allow the use of aircraft of efficient size while preserving the enriched revenue mix essential to profitability. Further, as noted above, it depends on having enough volume at the hub (and often enough other hubs) to offer competitive convenience to connecting passengers without offering rock-bottom connecting fares or waiting for passengers "spilled" from full flights on competitor airlines. Finally, although successful hub airlines hubs must charge O&D passengers more than other passengers to achieve overall levels of revenue sufficient to cover their costs, the presence of LCCs at the hub holds down local fares and presents the hubbing airline with a revenue challenge (as discussed in more detail below)¹³

¹² M.E. Levine, "Price Discrimination Without Market Power", *Yale Journal on Regulation*, Vol. 19, Winter 2002, pp. 1-36.

¹³ Bennett, Randall D. and James M. Craun, "The Airline Deregulation Evolution Continues: The Southwest Effect". Office of Aviation Analysis, U.S. Department of Transportation. May 1993; Borenstein, Severin, "Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry", *The RAND Journal of Economics*, pp. 344-365, 1989;

St. Louis was critically deficient in all these respects. It was among the smallest of the mid-continent hubs, with maintenance of O&D traffic volumes further challenged by the closure of numerous corporate headquarters formerly located there, as detailed below. STL's small size and the fact that it was TWA's only real hub put TWA at a disadvantage in attracting connecting revenue and in competing with larger, multihub airlines. Multiple hub locations make more airport-pairs commercially feasible without backhauls (indirect routings involving connecting points farther from the destination than the origin). A Delta customer in Indianapolis (IND) can fly westbound to Spokane via Minneapolis (MSP), northeast-bound to Buffalo via Detroit (DTW), southeast-bound to Jacksonville via Atlanta (ATL), and so on. All those Delta hubs were bigger than St. Louis (STL) and supported more frequency. In contrast, TWA could offer customers fewer departure choices and fewer destination choices because STL was too small to generate enough traffic to support service to all of those cities, and fewer practical choices as well. Flying southwest from Indianapolis to St. Louis in order to fly northeast to Buffalo adds greatly to journey times and inconvenience.

Finally, the degree of price discrimination possible at St. Louis was limited severely by the very substantial presence of Southwest Airlines, a low-cost carrier whose business model involved incentivizing O&D passengers to fly by charging lower fares that attracted more price-elastic passengers to expand O&D markets. These lower fares may have attracted more price-elastic passengers and thereby expanded the O&D markets, but Southwest also offered those reduced low fares to those who would otherwise have been forced to pay higher fares on TWA to receive convenient nonstop service. TWA had to match those fares in order to retain its O&D business base, severely impairing the profitability and viability of its hub.

Meanwhile, the airline's structural problems continued to worsen. By 2001, St. Louis was in long-term decline and its economic base had shrunk relative to national measures. It also was shrinking further in all the major drivers of non-tourist airline traffic. St. Louis's economic activity was dropping as a percent of U.S. GDP. It was only .96% of U.S. GDP in 2001, compared to considerably higher numbers for viable hubs, such as 1.41% for Minneapolis-St. Paul, 2.27% for Houston and 1.78% for

Wu, Steven M., "The 'Southwest Effect' Revisited: An Empirical Analysis of the Effects of Southwest Airlines and JetBlue Airways on Incumbent Airlines from 1993 to 2009", Michigan Journal of Business, Volume 5, September 2012, p.p.11-40.

Detroit. This decline was structural and long-term as evidenced by the fact that the decline has continued since American's acquisition of TWA (to .89% in 2010—a 10% relative decline) and by the ultimate failure of the hub in American's hands as well as TWA's.¹⁴

St. Louis's relative population also declined from 10th rank in 1970 to 17th rank in 1990 and 18th rank in 2000 and 2010. As a percent of US population, St. Louis went from .98% in 1990 to .93% in 2000 to .91% in 2010.¹⁵

Corporate headquarters are an important source of O&D revenue and corporate contracts, but St. Louis was losing corporate headquarters. In 1990, St. Louis was the headquarters for companies that account for 2.95% of the revenues of the U.S. Fortune 500. By 2000, that percentage had fallen to 1.19%.¹⁶ It continued to drop to .88% in 2010.¹⁷

To evaluate St. Louis as a mid-continent hub, I compared it to the viable hubs at Chicago, Dallas, Houston, Minneapolis, and Detroit and the failed hub at Pittsburgh. Pittsburgh and Detroit are particularly relevant because both, like St. Louis, were giants of the industrial era and have had to adapt as the U.S. economy and its demographics have changed over the years. Detroit is a profitable hub for Delta. It was fourth largest in our comparison set, but has declined to fifth (St. Louis is sixth) over the comparison period. It had 15.2 million Origin-Destination passengers in 2000, which fell to 13.4 million in the 12 months ending 9/30/12. Pittsburgh had 6.7 million Origin-Destination passengers in 2000 and had approximately the same number, 6.8 million, in the 12 months ending 9/30/12. St. Louis's were 10.8 million in 2000 and have declined to 9.4 million. Detroit thus has had approximately 50% more O&D traffic throughout the comparison period. Detroit generated \$2.613 billion in O&D revenue in 2000 and \$2.819 billion in the year ending 9/30/12. By

¹⁴ Bureau of Economic Analysis, <http://www.bea.gov/iTable/index.cfm> (Bureau of Economic Analysis).

¹⁵ 1949, 1952, 1962, 1972, 1982-83, 1992, 2002, & 2012 editions of the *Statistical Abstract of the United States* (US Statistical Abstract).

¹⁶ *Fortune Magazine* Fortune 500 Lists from: F500 Historical Lists (Fortune 500) for 2000 and 1990.

¹⁷ Fortune 500 for 2010 <http://money.cnn.com/magazines/fortune/fortune500/2010/states/MO.html>.

comparison, St. Louis generated \$1.874 billion and \$1.807 billion in the same periods. Pittsburgh was static at \$1.413 billion and \$1.392 billion.¹⁸

Figure 1: Summary of Mid-Continent O&D Traffic and Revenue

Annual Origin-Destination Passengers (Millions) for Mid Continent Hubs					
	1995	2000	2005	2010	2012*
Chicago	32.4	39.1	40.4	36.3	38.3
Dallas	21.7	24.5	25.5	25.5	26.6
Houston	14.6	18.2	18.5	18.3	18.9
Minneapolis	9.9	14.6	15.0	14.4	14.7
Detroit	12.2	15.2	14.3	13.1	13.4
St. Louis	9.8	10.8	9.7	9.5	9.4
Pittsburgh	5.6	6.7	7.0	6.9	6.8

Annual Airline Passenger Revenue (\$ Millions) Origin-Destination for Mid Continent Hubs					
Origin-Destination	1995	2000	2005	2010	2012*
Chicago	\$4,937	\$7,020	\$5,854	\$6,409	\$7,329
Dallas	\$3,501	\$4,970	\$4,312	\$4,956	\$5,643
Houston	\$2,184	\$3,179	\$2,994	\$3,661	\$4,318
Minneapolis	\$1,988	\$2,905	\$2,667	\$2,864	\$3,343
Detroit	\$2,002	\$2,613	\$2,354	\$2,440	\$2,819
St. Louis	\$1,289	\$1,874	\$1,559	\$1,635	\$1,807
Pittsburgh	\$1,031	\$1,413	\$1,153	\$1,205	\$1,392

*12 months ending 9/30/12

Source: Department of Transportation, DB1B Database

Hubs in cities the size of St. Louis have repeatedly failed.¹⁹

C. The Impact of Southwest Airlines Competition at St. Louis

Without a hub operation, the principal way to increase market density is to use low fares to attract passengers who might not have traveled at all or would not have traveled by air. Lower fares also attract passengers who would prefer to travel from another airport at another time, but are induced to accept the inconvenience of traveling by ground to a non-preferred airport or adjusting their travel schedule. These are the strategies employed by low-cost carriers (LCCs). LCCs typically do not coordinate their schedules to make connections more convenient and often operate in markets where they don't expect significant connecting traffic. Their lower costs are partly a function of the greatly increased productivity that results from more intense use of ground facilities and aircraft as idle time at gates is minimized as well as the

¹⁸ Department of Transportation, DB1B, http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=247&DB_Short_Name=Origin%20and%20Destination%20Survey (DOT DB1B).

¹⁹ See Appendix 1.

number of takeoffs and landings for any given level of revenue passenger miles.²⁰ In addition, the operating day is extended by using these lower costs to charge low fares for nonstop flights at inconvenient hours.

To add to the revenue challenges presented by St. Louis's (STL) relative weakness overall, TWA faced increasing competition for that revenue from Southwest. Southwest, a Low-Cost Carrier (LCC), had expanded its operation at STL from 36 departures a day (8.25% of TWA's) in 1990 to 87 departures a day (17.9% of TWA's) in 1995 and 80 (17.2%) in 2000.²¹ As a result, STL's Origin-Destination Average Fare was \$173.56 in 2000, among the lowest hub averages in the country, compared for example with \$199.04 at Minneapolis-St. Paul (MSP) in 2000. STL was low even compared with hubs with a substantial Southwest influence and very much more volume (for example, Houston (IAH) at \$175.11), hence using larger aircraft and achieving lower costs. But STL, now no longer a hub and still limited by Southwest, had risen only to \$191.95. The impact of Southwest expansion on hub O&D revenues can be seen in the drop of Pittsburgh from \$211.86 in 2000, with a US Air hub and no Southwest presence, to \$173.51 in 2010, with no USAir hub and substantial Southwest presence. Chicago is even more dramatic; as Southwest expanded from a limited to a very large operation at Midway competing with United and American at O'Hare, the O&D fare dropped from the upper end of those hubs with Southwest competition to the bottom.²²

In 1995, Southwest's CASM (cost per available seat-mile, stage-length adjusted), the industry's standard measure of relative costs, was about 8% below TWA's, and its adjusted RASM was 8%. By 1999, TWA's competitive position had worsened. Southwest's CASM was over 20% below TWA's, but its RASM (Revenue per

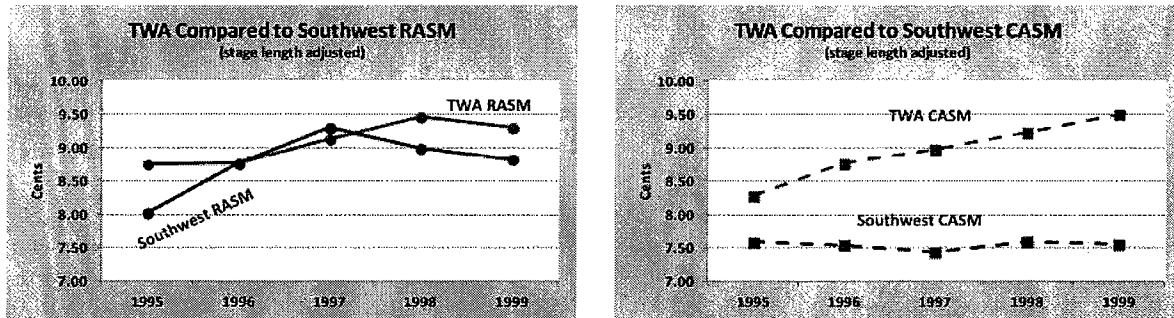
²⁰ Revenue passenger miles are the standard measure of output in the airline industry. A revenue passenger mile is one paying passenger carried one mile.

²¹ *Official Airline Guide*, Published Airline Schedules, (OAG) June of 1990, 1995, 2000.

²² DOT DB1B.

available-seat mile, stage-length adjusted) was only 5% less.²³ As a result, Southwest was solidly profitable, while TWA was hemorrhaging cash.²⁴

Figure 2: Southwest vs. TWA Stage Length Adjusted RASM & CASM



Source: DOT T100 for Stage Length Data, SEC 10-K Filings for Southwest, TWA, Continental, United, Delta, American, America West, Alaska, AirTran, ValuJet, Northwest, US Airways

TWA made many mistakes, but the causes of its failure were not limited to its own deficiencies. Its only hub, St. Louis, was in the process of becoming a failed hub. In addition to all of its other problems, unlike the hubs of other airlines its operations at St. Louis did not have the support of traffic flows through complementary hubs uninfluenced or less influenced by competition from Southwest. Support for the idea that St. Louis's problems were not solely attributable to TWA's management mistakes can be found in the fact that TWA's failure to succeed in operating a profitable hub at St. Louis was subsequently duplicated by American. American and its regional partners operated 423 daily departures from St. Louis in 2002 (compared with TWA's 486 in 2001), 392 daily departures in 2003, and 201 daily departures in 2004. By 2010, American operated just 31 departures per day from St. Louis.²⁵

Hubs that cannot support a profitable mixture of local and connecting O&D traffic struggle and then are dismantled or reduced to "focus cities," which are cities connected to hubs and where a few additional flights may offer some service at high prices to major cities. The nonstop service offered in combination with the service to

²³ Stage Length data from Department of Transportation T100

http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=309&DB_Short_Name=Air%20Carriers (DOT T100); CASMs and RASMs for various airlines from SEC 10-K filings for 1995 through 1999 (Delta had a different reporting period and their data is for year ending June 30, 1996 through 2000). Stage length adjusted curve determined by plotting RASM/CASM.

²⁴ Southwest profitability from SEC 10-K filings for 1999 and 2000; TW cash position from TWA et al. Transcript of Proceedings (Transcript of Proceedings), Jan. 10, 2001, page 54, lines 4 through p.55 line 10.

²⁵ OAG June of 2002, 2003, 2004 and 2010.

the hub allows strong loyalty programs and corporate contracts, thus producing higher unit revenues than if the city was only a spoke on several airlines' systems. In its final efforts to salvage something from its investment, American attempted the "focus city" strategy at St. Louis during the 2004-2005 period, but the substantial presence of Southwest precluded its success.

St. Louis's failure as a hub was not unique. Since deregulation, at least 48 air carrier hubs have failed, leaving 14 former hub cities without hub service.²⁶ At a few former hub cities, much as at St. Louis, Southwest has provided frequent, loosely coordinated service, leaving those cities with more service than simply as a spoke, but less than as a hub.

Consider Pittsburgh, once a major hub for US Airways, as an analogy to St. Louis. Pittsburgh is also a city that was once an industrial powerhouse. By 2001, however, its GDP as a percentage of national GDP was only .83%, similar to St. Louis's .89% now.²⁷ Moreover, its relative population had fallen from 1.51% of national population in 1940 to .84% in 2000.²⁸ US Airways and its regional affiliates operated a major hub at Pittsburgh from 1985 to 2003, peaking at 506 departures per day in 2001.²⁹ In 2001, the industry average fare in Pittsburgh was \$179.98, compared with \$160.01 in St. Louis.³⁰ Its performance there was helped by the absence of low-cost competition. But through the first decade of this century, US Airways kept trying to find a viable combination of fares and service. By 2005, it was only operating 221 flights and losing money. By 2010, its service level had dropped to 42 departures. Only as US Airways abandoned its hub entirely in the face of years of losses did Southwest enter with 10 departures a day.³¹ Pittsburgh is now a focus city for US Airways with 43 flights per day to US Air hubs, plus a small amount of service to cities such as Boston and New York. Only 13 of its departures are flown in aircraft larger than regional jets crewed by mainline pilots.³² US Airways survives mainly on the basis of its very large hubs at Phoenix and Philadelphia and its high concentration of large-O&D high-fare service at Washington Reagan. US Airways is also struggling

²⁶ Tables in Appendix 1 and Appendix 2.

²⁷ Bureau of Economic Analysis.

²⁸ US Statistical Abstract.

²⁹ OAG June of 1981, 1985, 1990, 1995, 2000, 2001, 2002, 2003.

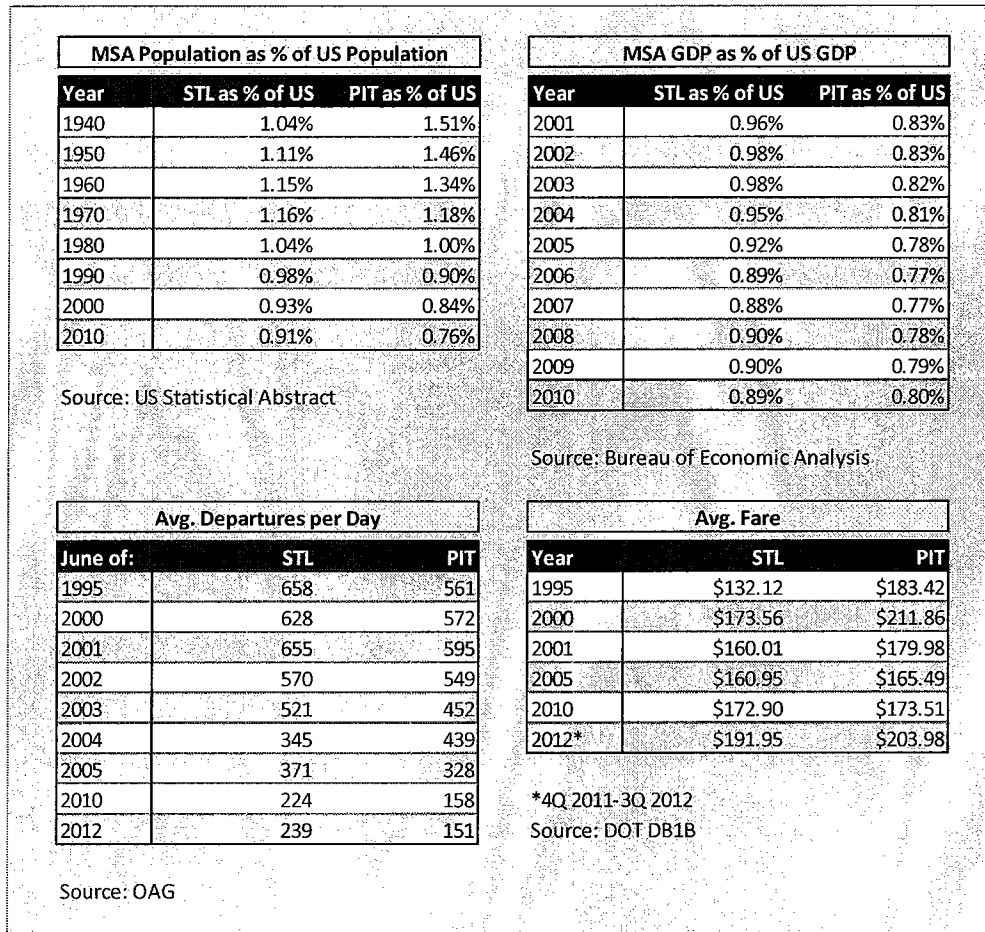
³⁰ DOT DB1B.

³¹ OAG June of 2005, 2010, 2012.

³² OAG June 2012.

to maintain its hub at Charlotte and is now seeking to merge with a now-bankrupt American.

Figure 3: St. Louis vs. Pittsburgh Comparison Over Time



D. The American Acquisition Was TWA's Only Alternative to Liquidation

In short, Saint Louis simply could not support a hub large enough to offer competitive frequency from spoke cities, a problem exacerbated by its single-hub status on TWA's system and local competition from Southwest. TWA's efforts to rescue St. Louis were doomed to failure, not simply because it lacked the financial base to give it time to turn around, but because it could not be turned around, as American's subsequent history demonstrated. Under the circumstances, the notion that there could have been a successful restructuring of TWA on a standalone basis was chimerical.

The results of this evolution were all too predictable. TWA had a major cash flow problem that worsened in the late 1990s, and become catastrophically bad in 2000. This occurred while U.S. airlines as a group were profitable.³³ TWA's reported operating income dramatically decreased from \$25 million in 1995 (\$27 million without special charges), as it emerged from its prepackaged bankruptcy, to an operating loss of \$369 million for the 12 months ending September 30th, 2000 (\$192 million without special charges).

As of December 31, 2000, TWA's cash balance was \$102 million.³⁴ By the day of the bankruptcy filing, January 10, 2001, however, TWA's cash balance had declined to \$20 million.³⁵ On January 10, 2001, Michael Palumbo, TWA's CFO, stated that TWA required approximately \$40 million to operate the following day. He testified under oath:

Q. Mr. Palumbo, how much cash is needed to fund the debtors' operations tomorrow morning?

A. We expect approximately a need of \$40 million.

Q. And, Mr. Palumbo, approximately how much cash will be needed from drawings on the DIP over some course of approximately the next week to fund the debtors' operations.

A. Over the next week, as has been mentioned earlier, the amortization of the company's \$100 million accounts receivable securitization will become due. We expect once the amortization begins – and I believe it will actually be the 16th because the 15th [I] believe will be a holiday – will require, will probably take about \$10 million a day, roughly and, therefore, amortize fully to \$100 million over approximately 10 business days.

Q. So approximately 14 days into this case, do you have an idea, assuming the DIP financing motion is granted, what the DIP financing balance will be?

A. I believe that including the amortization of the accounts receivable securitization, we will need up to about \$170 to \$180 million of drawing.

³³ Airlines for America.

³⁴ January Monthly Management Report Table 3, ALPA 054260.

³⁵ Transcript of Proceedings, Jan. 10, 2001, page 54, lines 4-5 (Palumbo – Direct).

Q. And Mr. Palumbo, what would be the effect of the operations of the debtors of not having the DIP financing available tomorrow morning?

A. It would be extremely difficult to conclude the day. We would likely start to downsize the operation. We would probably have to ground aircraft.”³⁶

Without the DIP financing from American, TWA would have soon liquidated.³⁷

This was not for want of trying: Management had tried to assemble a “rescue plan” that did not involve a merger in cooperation with Boeing, but this effort fell through. Just before TWA finalized its agreement with American, Boeing notified TWA that it would not participate in any rescue plan.³⁸ Thus, at the time of the bankruptcy filing, there was no solution at hand to enable TWA to survive its January financing problems, let alone the liquidity problems that would be generated by continuing cash burn in February and beyond.³⁹ TWA needed an immediate way to address the amortization event and to cover its cash deficit for January – March; the rest of the year was moot if these issues could not be resolved.

Every major airline had inspected TWA, allegedly with an eye toward a possible merger, but it became clear that, aside from American, these airlines mainly hoped to buy valuable TWA assets in a liquidation.⁴⁰ Only American made a comprehensive acquisition proposal that would have preserved TWA pilot jobs.

As discussed above, St. Louis was not a viable hub on its own, so the local O&D traffic and the connecting possibilities it would support added little by way of complement to another airline. US Airways did not need another weak hub. United was dominant at Chicago O’Hare (ORD), so a weak mid-continent hub at STL added nothing to its operations. Continental was not interested for good reasons, including St. Louis’ non-viability as a standalone hub, low complementarity to Houston (IAH), and a desire to avoid additional direct competition with Southwest. However, United, US Airways and Continental all were interested in TWA’s slots and gates at O’Hare, Washington Reagan and the New York airports, and possibly a few other assets, all of

³⁶ Transcript of Proceedings, Jan. 10, 2001, p.54 line 16 through p.55 line 16 (Palumbo – Direct).

³⁷ Transcript of Proceedings, Mar. 10, 2001, p.383, lines 8-11 (Compton – Direct).

³⁸ Palumbo Deposition p.83 line 23 to p.84 line 11.

³⁹ Compton Deposition, p.132 lines 14-20, p.133 line 18 through p.134 line 4, p.135 line 5 through p.136 line 18.

⁴⁰ Compton Deposition p.32 line 4 through p.38 line 20; VIDEOTAPED DEPOSITION OF JOHN DARRAH, PATRICK BRADY, et al., Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant, Thursday, November 29, 2012, (Darrah Deposition) p.83 lines 5-15.

which would require a liquidation followed by an auction unencumbered by other assets. Unlike American, none of these airlines was interested in inheriting any obligations to TWA employees. In short, TWA had no meaningful alternative to the American transaction other than liquidation.

Icahn talked vaguely about providing a DIP loan, but insisted on preserving the Karabu deal that would have killed any prospect of revenue performance adequate to keep the airline going. The Karabu deal was very profitable to Icahn, but not to TWA. In addition, given his history, Icahn tainted by his participation any hope of cooperation by other potential contributors to a rescue.⁴¹ They were suspicious of his commitment to finding a permanent solution to TWA's operating deficits and appeared to agree with the view of almost everyone connected with TWA that his only goal was to try to find a way to keep TWA alive for as long as possible to keep sucking its lifeblood through the Karabu deal. One can surmise that any loan to TWA (which would have had some collateralization) would have been dwarfed by Icahn's earnings from Karabu. His proposal simply was not credible to the bankruptcy court as a way of keeping TWA viable on an ongoing basis.⁴²

To repeat, the short of the matter is quite simple: TWA did not have sufficient cash at the beginning of January to finance its cash operating losses and make the \$100 million payment inexorably coming due on January 15.⁴³ It received a DIP loan of \$200 million upon filing for bankruptcy on January 10, but continued to bleed cash. By February 20, TWA had drawn \$170 million of the DIP loan.⁴⁴ By March 9, TWA required, in its judgment, a second DIP loan of \$130 million from American in order to continue to be able to operate its fleet.⁴⁵ Mr. Palumbo testified again, on March 9, 2001, that TWA had a daily average burn rate, including weekends, of about \$3 million. By that time, TWA was not even paying its aircraft leases—and had not paid them since January—which would have increased the burn rate by approximately \$2 million a day.⁴⁶

⁴¹ *Re: Trans World Airlines, Inc., et al.* Case No. 01-00056 (PJW) Apr. 2, 2001 United States Bankruptcy Court District of Delaware (April 2 Letter).

⁴² April 2 Letter.

⁴³ Transcript of Proceedings, Jan. 10, 2001, p.54 line 4 through p.55 line 16 (Palumbo – Direct).

⁴⁴ Opposition of AMR Corp, American Airlines, Inc., and AMR Finance, Inc. To Continental Airlines, Inc.'s Motion to Stay Bidding Procedures Order and Postpetition Financing Order Pending Appeal (page 30) 2/20/01.

⁴⁵ Transcript of Proceedings, Mar. 9, 2001, page 21, lines 3-16 (Palumbo – Direct).

⁴⁶ Transcript of Proceedings, Mar. 9, 2001, page 20, line 12 through page 21, line 2 (Palumbo – Direct).

The American deal was necessary for TWA to avoid liquidation in January or February, and again to avoid effective grounding in March.

Even if, contrary to fact, one assumes that TWA could have survived its immediate liquidity crisis, TWA's prospects on a standalone basis didn't promise long-term improvement, as was subsequently demonstrated by American's performance at St. Louis.⁴⁷ These trends were evident before the merger; subsequent events confirmed their accuracy. American was forced to scale down the St. Louis hub and eventually abandoned most of TWA's prior flying with aircraft larger than regional jets and turboprops. American's upside was limited, but they (incorrectly) thought that STL would allow ORD restructuring and local O&D focus and ignored STL redundancy to Dallas/Fort Worth (DFW) at much lower frequency. As subsequent events confirmed, AA's theory was not valid.

Plaintiffs' experts have avoided using evidence to assess TWA's viability for the purposes of assessing TWA pilots' ability to bargain for better integration terms and thus have assumed better integration terms to estimate the prospects of TWA pilots than were actually available. Salamat conceded that an airline's financial condition affects the pre-transaction career expectations of its pilots,⁴⁸ but he explicitly states that he made no assumption as to whether TWA was effectively defunct in assessing pilot bargaining leverage.⁴⁹ And Professor Farber accepts that whether or not TWA would have been liquidated is critical to his analysis⁵⁰ but simply assumes TWA's continuing viability as a starting point for his analysis of its pilots' prospects, again without reviewing the evidence to find specific support for the assumption.⁵¹ This is perhaps not surprising, given that Professor Farber constructed his model without having ever done any work on the airline industry,⁵² without having ever seen an airline bankruptcy filing, or indeed any bankruptcy filing at all,⁵³ and without having ever done any work concerning seniority integration before this case.⁵⁴

⁴⁷ OAG June of 2000, 2001, 2002, 2003, 2004, 2005, 2010, 2012.

⁴⁸ Salamat Deposition Jan 29, pp. 86-87.

⁴⁹ Salamat Deposition Jan 29, p. 88 lines 13-15.

⁵⁰ Farber Deposition Jan 22, p.138 line 25 through p.139 line 5.

⁵¹ Farber Deposition Jan 22, p.74 line 24 through p.75 line 24.

⁵² Farber Deposition Jan 22, p.18 lines 17-19.

⁵³ Farber Deposition Jan 22, p.75 lines 4-6.

⁵⁴ Farber Deposition Jan 22, p.18 lines 22-24.

As detailed above, TWA had obligations it couldn't meet and had no prospect of meeting except through the American deal—a deal that only closed because the TWA pilots waived their rights to arbitration. And we have seen, contrary to plaintiffs' experts' assertions and assumptions, that, but for the American transaction, TWA was effectively out of business, would have discontinued operations and could not have provided any pilot jobs going forward.

III. The Challenges to Seniority Integration at American Airlines

For the reasons set forth above, TWA had no choice but to accept American Airlines' offer. Failure to do so would have meant running out of cash very quickly and airplanes sixty days later than the filing date (if TWA didn't run out of cash first) and liquidating. In the process, the jobs of TWA's employees, including its pilots, would have been lost. Plaintiffs' experts' assumptions to the contrary⁵⁵ are simply not supported by the facts. Nevertheless, the suggestion has been made⁵⁶ that even if the TWA bankruptcy and merger were inevitable, the TWA pilots had leverage they should have exploited by threatening to delay or disrupt the American Airlines transaction either by refusing to waive their seniority and arbitration rights, which American had made a condition of closing, or by threatening to strike if the bankruptcy court granted TWA's Section 1113 motion, thereby invalidating TWA's collective bargaining agreement with its pilots. Salamat argues that American could either have prevailed on the Allied Pilots Association to agree to a process that conformed to TWA's scope provisions or at least to modify the APA's proposals, or could have used the threat to force such an arbitration as bargaining leverage.⁵⁷

This position, like the position that TWA could have survived without American, is simply without any basis in the real world of airline operations.

A. The Unique Importance of Labor Relations in the Airline Industry

American had strong incentives to avoid conflict with its pilots over the transaction. Although airlines use high-tech tools, they are really a challenge in coordination. The task is to provide the regular results that passengers expect and on which smooth and cost-effective operation depends in the face of constant random variation in weather,

⁵⁵ Farber Deposition Jan 22, p.83 lines 6-13.

⁵⁶ Salamat Deposition Jan 29, pp.215-219, p.227 line 8 though p.231 line 22.

⁵⁷ Salamat Deposition Jan 29, p.251 line 3 through p.252 line 18.

air traffic and ground congestion, mechanical irregularities and other impediments to the smooth meshing of hundreds or thousands of flights a day involving hundreds of aircraft at many far-flung locations. The aircraft and locations are staffed with thousands of employees, including pilots, each of whom can delay or facilitate a scheduled flight and many of whom work without immediate and direct supervision.

A Bureau of Labor Statistics analysis summarizes the state of American's labor relations with its pilots as follows:

At the time of the dispute over the integration of Reno Air, there was already discord between American Airlines and the Allied Pilots because of problems that had been brewing for several years. In the mid-1980s, American Airlines unilaterally imposed a two-tiered wage system on pilots. In addition, following the integration of AirCal in 1987, some AirCal pilots stayed for several years at lower wage rates than their counterparts at American Airlines. In the early 1990s, the carrier closed hubs in San Jose and Raleigh-Durham, and pulled out of West Coast service. As a result, American Airlines made joint marketing agreements with low-cost carriers, such as Reno Air, that gave them access to American's gates. American pilots saw this as an attempt to subcontract their jobs. During this time, American furloughed 610 pilots, some for as long as 3 years.⁵⁸

Cockpit crews can profoundly affect the operating results of an airline by the degree of enthusiasm with which they pursue common goals with the company and adjust their behavior in real-time in response to changing conditions. When all goes smoothly, a complex ballet constantly adjusts to provide regularity of operation in the face of constant change. When it goes badly, planes are delayed, passengers inconvenienced (often requiring expensive reaccommodation), flights get cancelled because the aircraft are not in position, and connections are missed, requiring a mad and costly scramble to rearrange passengers, crews, aircraft and gates. Pilots can taxi quickly, moderately, or slowly. They can run through their checklists quickly in order to take advantage of a takeoff slot that opens stochastically or they can delay and lose

⁵⁸ An account of the dispute by Michael H. Cimini of the U.S. Bureau of Labor Statistics entitled "Profile of the American Pilots' Sickout" was published in the BLS's Compensation and Working Conditions Winter, 1999, pp. 21-26 and can be found at <http://www.bls.gov/opub/cwc/archive/winter1999art3.pdf> (Profile of American Pilots' Sickout).

their turn. They can look for a routing shortcut or a better altitude to make up lost time, or just go through the motions and accept delays that snowball through late arrivals and missed crew and passenger connections. They can “write up” a maintenance problem in a way that grounds the aircraft or they can characterize it (without compromising safety, because of systems redundancy) as a problem that can be taken care of overnight or at the next maintenance check. They make all these decisions in the cockpit without direct external supervision and the decisions are not visible at the time they are made and often not even capable of being evaluated without an exhaustive and time-consuming post-mortem to place them in the context of the prevailing circumstances.

In short, pilots exercise judgment in many ways on almost every flight, with important consequences for the airline that employs them. In my experience and judgment, these issues can be crucial to an airline’s ongoing success and prospects. When morale is bad and labor hostile to management, the manner in which such discretion is exercised has the potential to raise costs, poison relationships with passengers, and damage revenues. On the other hand, airlines that manage these relations well have a significant competitive advantage. Delta and Southwest, competitors of American, have done a particularly good job with labor relations over the years, in a way that has been reflected in their financial results. By contrast, at American Airlines in the late 1990’s and early 2000’s, there was discord with its pilots union, the APA, that had been brewing for years.

B. The Impact of American’s History of Labor Disputes

Shortly before the American/TWA transaction, American experienced firsthand how this background of discord coupled with other pilot concerns about a new carrier acquisition could quickly create a very disruptive and expensive labor issue. American purchased Reno Air in December 1998 and integrated it into American’s system by October 1999. A dispute with its pilots over seniority integration emerged almost immediately and ultimately resulted in a pilot “sickout” in February 1999 that was very costly to American and to its pilots union.

As described in a U.S. Bureau of Labor Statistics publication:

American Airlines’ and the APA negotiators opened contract talks in January 1999. After negotiators reached an impasse in early February 1999, the APA urged its members to consider whether

the emotional or physical stress from the dispute would affect their ability to fly safely. The union's president, Richard LaVoy, told his members shortly after the sickout began, "We simply cannot allow anyone to pressure us into flying when we are not medically fit because it would be a serious violation of medical regulations."

On February 5, American Airlines presented what it called a comprehensive proposal to the union, after which contract talks recessed. On the next day, some pilots started calling in sick, while others refused to fly overtime, causing the carrier to cancel flights. American Airlines canceled 90 flights on February 6, another 240 on February 7, and 500 flights on February 8. Because February is usually a light travel month, American's domestic flights were not booked up, so domestic passengers were more easily accommodated; but many of its international passengers had to be booked on other carriers. American Airlines, however, threatened to sue the union if it didn't terminate the sickout by the President's Day holiday weekend, when it and other carriers would be heavily booked.

At the company's behest, the parties resumed negotiations on February 9, at which time 827 flights were canceled affecting some 73,000 passengers. Frustrated by the continued sickout, which had forced the cancellation of some 2,400 flights since February 5, American requested a temporary restraining order on February 10 to end the job action. In its court filing, the carrier said that sick calls increased from 470 on February 5 to 1,200 by February 9. In addition, American cited several instances where union officials encouraged their members not to report to work if they felt "stressed" because of the pace of the negotiations, or otherwise felt sick. The carrier insisted that, given its willingness to address the union's fundamental concerns, there was no reason for the job action to continue. With that, the union canceled the negotiation sessions that were to be held that day.

On February 10, [1999,] U.S. District Judge Joseph Kendall found that the underlying labor dispute was a so-called “minor dispute” and, thus, the job action was “inappropriate and has to stop.” (Case No. 7:99-CV-025-X.)

The judge ordered the pilots to end the sickout and to resume negotiations....

The parties resumed negotiation on February 11. About 2,400 pilots reported in sick on that day—compared to 2,077 the day before—and some 1,100 flights were canceled. On the same day, American Airlines went back to court and asked the judge to issue a contempt order in which the carrier would receive substantial monetary damages from the union.

On February 13, Judge Kendall issued a contempt of court citation against the union and two of its leaders. ... The judge specifically cited a February 10 communication from the union leadership to its members, which, the judge said, “...intentionally gave the impression and further conveyed to the union membership that individual Union members did not have to comply with the TRO.”⁵⁹

This narrative highlights how difficult and complicated the issue of pilot integration was for American and makes clear that the attitude of American’s pilots toward the merger was of critical operational and financial importance. American recognized that it had a history of difficult labor relations with its pilots.⁶⁰ It also had recent experience with the costs occasioned by pilot hostility and low morale.

TWA’s pilot pay rates were far below those of American and it had more productive work rules.⁶¹ This fact created a similar dynamic to the experience with the Reno Air acquisition, including both concern for the impact on seniority and prospects, and the question of whether Reno Air’s lower pay rates and more productive work rules

⁵⁹ Profile of American Pilots’ Sickout.

⁶⁰ VIDEOTAPED DEPOSITION OF DONALD CARTY, PATRICK BRADY, *et al. Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant*, Monday, October 15, 2012 (Carty Deposition), p.37 line 22 through p.38 line 22.

⁶¹ Carty Deposition, p.23 lines 20-23; Compton Deposition, p.74, lines 3-13.

would both be used in bargaining to undercut the APA's position with American. The concern that American would be tempted to find ways to outsource flying to Reno was one of the key factors that caused the 1999 work action. The TWA transaction implicated many of the same issues and concerns.

Given this history, Salamat's assertion⁶² that the APA would have had an incentive to negotiate "because there was no way to know what American was absolutely going to do if they hadn't waived scope" is speculative and completely contrary to the evidence. The Reno Air dispute was very costly and was something that American's leadership was unwilling to repeat in the TWA acquisition.⁶³ American's estimate of its direct losses from the ten days of work stoppage during the Reno Air dispute was \$200-250 million, based on calculations of damages from the last two days of the sickout in violation of the TRO.⁶⁴ It is difficult to estimate the ancillary losses resulting from customer ill-will and the loss of future business. It is also hard to quantify losses stemming from lingering resentment on the part of the pilots, which might lead them to exercise unsupervised discretion in ways that were costly to the company (work-to-rule, failure to operate the aircraft in the most cost-conscious way possible, both common and legal tactics of disgruntled pilots). And all this exposure was for an acquisition that was a much smaller transaction than TWA, and which might have been supposed to generate less passion than would a dispute over TWA.

My best estimate is that a Reno-type action over TWA would have cost at least \$31 million per day, based on the larger revenue base in the second quarter of 2001.⁶⁵ It also would have re-poisoned a well that had been poisoned very recently, further

⁶² Salamat Deposition Jan 29, p.186 lines 2-4.

⁶³ See p.34 for Carty's testimony about American's unwillingness to further irritate its labor relations.

⁶⁴ *American Airlines Inc. v. Allied Pilots Association*, 53 F.Supp.2d 909 (N.D. TEX 1999).

⁶⁵ To estimate the approximate magnitude of a similar length and type work stoppage as a result of American's merger with Trans World Airlines ("TWA"), I used revenue for the quarter where American merged with TWA compared to the revenue when the American/Reno work stoppage occurred (immediately past the American merger with Reno Air) as an adjustment factor for the court accepted damages (\$200-250 million for the 10 day period) that occurred during the American Airlines work stoppage related to the Reno Air merger. American's daily estimate of damages from the Reno Air work action adjusted by the relationship the revenue for the of period ending Jun. 30, 2001 (\$5,174 million) – the quarter in which the TWA merger closed – compared to the quarterly revenue for the period ending Mar. 31, 1999 (\$4,212 million) – the quarter in which the Reno Air work action occurred. Based on a similar sized work action, AA's damages for a ten-day sickout in Q2 2001 is estimated to be \$245-315 million. This estimate is in my judgment conservative because of the difficulty of calculating precisely the damage to American's revenues from customer alienation and "brand" damage, for which no impact has been included. Damages figure from *American Airlines Inc. v. Allied Pilots Association*, 53 F.Supp.2d 909 (N.D. TEX 1999) Revenue figures are from AMR Corp. 10-Q filings with SEC and exclude American Eagle revenues. AMR Corp. Quarterly 10-Q SEC filings for: Quarterly Period Ending Mar. 31, 1999, filed on May 14, 1999; and for: Quarterly Period Ending Jun. 30, 2001, filed on Aug. 13, 2001.

compromising the company's ability to accomplish other goals that would require pilot cooperation.

Another factor emphasizing American's exposure to a pilot dispute over seniority was the fact that the Reno Air dispute had involved integrating only 292 Reno Air pilots into an APA pilot workforce of 8,174.⁶⁶ A TWA dispute would have involved integrating 1,999 TWA pilots into an APA workforce of 9,816, which clearly presented a considerably higher level of risk of disruption.⁶⁷

Salamat himself admits that if it could be established with certainty that American would have walked away from the transaction, he'd have to consider changing his views.⁶⁸ In fact, there is no actual evidence whatever that American would have gone ahead in the face of a TWA pilot refusal to waive scope. And there is a great deal of evidence to the contrary. Salamat doesn't seem to have been aware of this sworn evidence when he formed his opinion, although he dismissed it out of hand once he learned of it.⁶⁹

C. The Potential Impact of the TWA Transaction on the APA Pilots

American had other problems that made potential distraction and disruption from a pilot response to an attempt to override their seniority rights particularly expensive to AA. The airline suffered from high pilot costs, which unlike its competitors' were not ultimately lowered in a bankruptcy until 2013. These costs, added to other labor costs and competitive challenges at ORD, JFK, and LAX, meant that AA was ill-positioned to accept a further financial penalty from an acquisition that on its own was no game-changer for American. AA's probable need to continue to restructure going forward meant that they would need pilot cooperation on issues and opportunities much more fundamental than those presented by TWA. The lingering resentment from all this over ten years later affected American's ability to control its own fate when it negotiated its recent merger with US Airways coming out of bankruptcy. And TWA

⁶⁶ DOT Form 41, Schedule P10, http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=302&DB_Short_Name=Air%20Carrier%20Financial (DOT Form 41, Schedule P10).

⁶⁷ DOT Form 41, Schedule P10.

⁶⁸ Q. "If I could establish with a hundred percent certainty that [in the event of a TWA pilot refusal to waive scope] American would have walked away from the TWA transaction and abandoned it, would that have affected your analysis in any way?"

A: "It may have". It may have."

Salamat Deposition Jan 29, p.217 lines 2-7.

⁶⁹ Salamat Deposition Jan 29, p.219 lines 1-16.

simply wasn't worth upsetting what apples were left in the applecart over this merger transaction. American's upside from TWA was limited and ultimately nonexistent, as demonstrated by subsequent events.

American had every reason to expect pilot problems similar to but worse than those it had experienced in connection with the Reno Air transaction. First, American pilots had relatively little to gain from a merger. The APA viewed the transaction as "not a merger with a complete air carrier, nor . . . a transaction between equals" but rather "a purchase by one of the largest and most financially stable global airlines of most, but not all the assets of a smaller, largely regional carrier, which was within hours of going out of business."⁷⁰ Knowing there was little to gain and that the future prospects for TWA pilots (absent the deal) were dismal, the APA saw no reason to give up the contractual protection of their seniority status that they had bargained for and which represented an important and emotional political issue for the pilots.⁷¹

In addition, given American's historically poor labor relations, the company had no desire to exert pressure on the APA because, as American CEO Don Carty said, "it was very clear that [the APA] would not allow arbitration of the seniority issue."⁷² They were contractually protected from the imposition of "outside" seniority integration arrangements. ALPA pressure to use Allegheny-Mohawk integration was of no political salience to the APA and, more broadly, to American's pilots. ALPA pilots didn't vote in the APA's elections, and the APA's leadership was intensely aware of the salience of this issue to their membership. The salience of the seniority integration issue imposed limits on the APA's freedom to negotiate, even if they wanted to negotiate (which they didn't much want to do). The limited concessions the APA offered to pre-deregulation senior TWA pilots represented both compassion toward fellow deregulation "combat victims" and a recognition that the TWA pilots were going to become their colleagues, so that it made a certain amount of sense to ameliorate resentment and bad blood between the two groups.

Supplement CC was itself controversial, with many American pilots complaining that it was too generous to the TWA pilots. It was justified as a kind of combat camaraderie reward for TWA pilots who had been hired under the *ancien regime* and

⁷⁰ Darrah Deposition, p.98 lines 1-7. Reading of Darrah Exhibit 23, a letter from Captain Edwin White to Captain Michael Day, dated July 18, 2001.

⁷¹ Darrah Deposition, p.45 lines 19-20.

⁷² Carty Deposition, p.31, lines 1-2.

who had suffered the cruel consequences of deregulation along with American's most senior pilots.⁷³ As a matter of contract rights, American had nothing in the way of seniority that it could give to TWA pilots. The APA "own[ed] the seniority list according to [its] contract."⁷⁴ Since American pilots would not gain flying from the deal and "would've been ecstatic" had the deal not gone through,⁷⁵ American had no real leverage to impose any contractual modifications.

There were no other self-interested inducements in the deal for AA pilots. The "fence" meant that TWA pilots would fly whatever mainline aircraft would be based at St. Louis, so no direct opportunity would have been created for AA pilots. Absent wholly speculative significant growth for the airline as a whole, integrating TW pilots into the AA seniority list anywhere but at the bottom only increased the risk of furlough for AA pilots and impeded their prospects for advancement. And in a deal that they saw as increasing corporate risk with no benefit for them, there was no sentiment for compromising their own position.

D. American's Unwillingness to Disadvantage Its Own Pilots

From the company's perspective, a fight with its pilots over seniority integration, one of the most emotional issues of all in airline/pilot industrial relations, was not worth taking on. American "did not want to take strategic action that would further irritate the labor relations challenges [it] already had."⁷⁶ AA had a great deal to lose in another war with pilots and AA management made it very "clear to [American] employees that [it] would not compel arbitration on any of [its] workforces."⁷⁷ Knowing that the APA would not accept arbitration, American "would not have proceeded with the transaction" had TWA's pilots not waived their arbitration rights.⁷⁸ The economics of the industry, including especially its thin margins, operating leverage, and many "moving parts" that need to be coordinated make disruption generally expensive to airlines, both in direct costs and in customer loyalty lost. AA's history, including the Reno Air fracas, made clear that this applied to AA as well.

⁷³ VIDEOTAPED DEPOSITION OF EDWIN CHESTER WHITE JR., *PATRICK BRADY, et al., Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant*, Friday, October 12, 2012, (White Deposition) p.38 line 23 through p.39 line 23.

⁷⁴ Darrah Deposition, p.46, lines 1-2.

⁷⁵ White Deposition, p.78, lines 21-24.

⁷⁶ Carty Deposition, p.30, lines 14-16.

⁷⁷ Carty Deposition, p.29, lines 16-18.

⁷⁸ Carty Deposition, p.33, lines 15-16.

As a result, when it came to threatening a holdup, TWA pilots had negligible bargaining leverage and an attempt to hold up the deal would only have killed it and TWA along with it. Attempting to accommodate the seniority goals of the TWA pilots would have created a confrontation with AA pilots which AA would not accept. AA's upside from the merger was limited, speculative and, as events proved, nonexistent; the downside from a war with pilots was certain and expensive.

As Jeffrey Brundage, who was Managing Director in the employee relations department from Dec. 1999 to Spring 2001, then Vice President of Employee Relations as the transaction moved to its climax, testified during his deposition, American management decided that it was simply unwilling to risk another confrontation of this kind in connection with the TWA transaction:

Q. My question is why American Airlines decided to structure this transaction as an acquisition of assets?

....

THE WITNESS: We had a very difficult experience in the Reno acquisition, which was in fact a more traditional acquisition and merger. And all of the discussions at the executive committee at that time was that we needed to find every way possible to mitigate any risk that might be associated with the TWA transaction. We were willing to assume certain economic risk[s]. We were willing to assume certain root [*sic*] structure risks that go with airports and equipment. But we could not, after the Reno experience, assume any labor-related risk. So as a result, this transaction was structured in a way that the transaction would not proceed if any of those labor-related risks or concerns were not resolved.

When asked how he knew this was the case, Mr. Brundage replied, "Because I participated in the meeting with the executive committee, with the CEO,

occasional board meetings and with the corporate development folks who were responsible for the business side of the transaction.”⁷⁹

Mr. Brundage’s view of likely APA pilot hostility was corroborated by Edwin White, the APA chief negotiator with respect to the transaction.⁸⁰ Moreover, American’s CEO at the time, Don Carty, confirmed that American was unwilling to compromise on the waiver of TWA pilot integration rights.⁸¹

In sum, while American thought the TWA acquisition had some strategic value, it did not have so much value that American’s CEO and Board were willing to take any labor risk in the aftermath of the Reno Air sick out. American felt so strongly about honoring its contractual commitment to the APA that it wrote a requirement in the TWA Asset Purchase Agreement requiring all TWA Collective Bargaining Agreements be modified to eliminate the clauses that conflicted with American’s contracts with its unions, including the right to arbitration related to seniority integration as part of a merger. There was a clear understanding between American, the APA and TWA management that the TWA acquisition would not go through unless the TWA unions waived their rights. American’s CEO, Donald Carty, was the ultimate decision maker and with the support of his board had decided that American would not proceed with the transaction unless they got the waiver. This was clearly communicated to the APA, affecting its mindset in terms of leverage. APA knew it had the sole right to unilaterally integrate the seniority lists and the APA leadership firmly believed⁸² that TWA was within hours of ceasing operations when AA agreed to the purchase. The APA membership was not interested in the TWA acquisition and would have preferred the deal not happen.

With negligible bargaining leverage and a non-viable airline, TWA pilots were fortunate to have secured any deviations from an arrangement that stapled all of them to the bottom of the American seniority list. Even plaintiffs’ experts

⁷⁹ VIDEOTAPED DEPOSITION OF JEFFREY BRUNDAGE, *PATRICK BRADY, et al. Plaintiffs, -vs- AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, Defendant*, Tuesday, October 23, 2012, (Brundage Deposition) p.18 line 1 through p. 19 line 7.

⁸⁰ White Deposition, p.69 line 4 through p.70 line 17.

⁸¹ Carty Deposition, p.32 lines 15-24; p.33 lines 8-20.

⁸² Darrah Deposition, p.68 lines 2-6, p.83 lines 17-20.

recognize that pilots of an airline that is not viable cannot expect an integration that disadvantages the pilots of the acquiring carrier.⁸⁴

IV. Conclusion

TWA's bankruptcy deal with American was absolutely necessary to avoid liquidation and the loss of TWA pilot jobs. TWA had no viable alternatives to filing for bankruptcy and merging with American in January 2001. A threat to force American to confront its pilots over seniority integration had no leverage behind it for two reasons: American knew that TWA had no alternative to the transaction, and no rational American management would have chosen to exacerbate already difficult relations with its own pilots to close the transaction with TWA.

A handwritten signature in black ink, appearing to read 'M. E. Levine', followed by a horizontal line.

Michael E. Levine

March 15, 2013

⁸⁴ Farber, Henry S., *Damages in Brady et al v. The Air Line Pilots Association* (Farber Report), p.11. In addition to being based on a serious mischaracterization of the plaintiffs' bargaining position, plaintiffs' claims for individual damages also ignore the impact of the following factors: (1) the continued deterioration of the STL hub; (2) the impact on the industry of the events of 9/11 and the contraction in flying that would have furloughed less-senior pilots (see Salamat Report, p. 28); (3) the rise in fuel costs and concurrent industry contraction; and (4) industry changes over the next decade in response to financial pressures, including generalized capacity restraint, frequency reductions in many markets, and the abandonment of unprofitable routes, not to mention the closing of marginal hubs like St. Louis (see Airlines for America).

APPENDIX 1: CLOSED HUBS

Airline	Airport	Year Closed	Reference
Frontier Airlines	General Mitchell International Airport (Milwaukee)	2012	1
American Airlines	Luis Muñoz Marín International Airport (San Juan)	2012	2
American Airlines	Lambert-St. Louis International Airport	2010	3
ATA Airlines	Chicago Midway International Airport	2008	4
Delta Airlines	Orlando International Airport	2008	5
Independence Air	Washington Dulles International Airport	2006	6
Delta Airlines	Dallas-Fort Worth International Airport	2005	7
American Airlines	San Jose International Airport	2005	8
America West Airlines	Las Vegas McCarran International Airport	2005	9
ATA Airlines	Indianapolis International Airport	2005	10
US Airways	Pittsburgh International Airport	2004	11
United Airlines	Miami International Airport	2004	12
America West Airlines	Port Columbus International Airport	2003	13
Midway Airlines #2	Raleigh-Durham International Airport	2003	14
National Airlines	Las Vegas McCarran International Airport	2002	15
Vanguard Airlines	Kansas City International Airport	2002	16
AccessAir	Des Moines International Airport	2001	17
Delta Airlines	Portland International Airport	2001	18
US Airways	Baltimore Washington International	2001	19
Reno Air	Reno/Tahoe International Airport	2000	20
Western Pacific Airlines	Denver International Airport	1998	21
Western Pacific Airlines	Colorado Springs Airport	1997	22
American Airlines	Nashville International Airport	1995	23
American Airlines	Raleigh-Durham International Airport	1995	24
Continental Airlines	Stapleton International Airport (Denver)	1994	25
TransWorld Airlines	Hartsfield Atlanta International Airport	1994	26
American Airlines	San Jose International Airport	1993	27
Braniff Airways #3	Dallas-Fort Worth International Airport	1992	28
Eastern Airlines	Hartsfield Atlanta International Airport	1991	29
Eastern Airlines	JFK International Airport	1991	30
Eastern Airlines	Miami International Airport	1991	31
Midway Airlines #1	Chicago Midway International Airport	1991	32
Midway Airlines #1	Philadelphia International Airport	1991	33
Pan American World Airways	JFK International Airport	1991	34
Pan American World Airways	Miami International Airport	1991	35
Piedmont Airlines	Dayton International Airport	1991	36
Braniff Airways #2	Kansas City International Airport	1989	37
Piedmont Airlines	Syracuse Hancock International Airport	1989	38
Continental Airlines	Washington Dulles International Airport	1988	39
Eastern Airlines	Kansas City International Airport	1988	40
United Airlines	Cleveland Hopkins International Airport	1987	41
New York Air	Raleigh-Durham International Airport	1987	42
Continental West	San Jose International Airport	1986	43
Frontier Airlines	Stapleton International Airport (Denver)	1986	44
TransWorld Airlines	Pittsburgh International Airport	1985	45
Altair Airlines	Philadelphia International Airport	1982	46
Braniff Airways #1	Dallas-Fort Worth International Airport	1982	47
TransWorld Airlines	Kansas City International Airport	1982	48

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APPENDIX 2: FAILED AIRLINES

Airline	Year of Discontinued Operations	Reference
Comair	2012	1
Lynx Air International	2009	2
Aloha Airlines	2008	3
ATA Airlines	2008	4
SkyBus Airlines	2008	5
MaxJet Airways	2007	6
Independence Air	2006	7
Pan American Airways #3	2004	8
Midway Airlines #2	2003	9
National Airlines	2002	10
Vanguard Airlines	2002	11
AccessAir	2001	12
Western Pacific Airlines	1998	13
Pan American Airways #2	1998	14
MGM Grand Air	1995	15
Mid Pacific Air	1995	16
Braniff International Airlines #3	1992	17
Midway Airlines #1	1991	18
Pan American World Airways	1991	19
Braniff International Airlines #2	1989	20
Eastern Airlines	1989	21
Presidential Airways	1989	22
Air Atlanta	1987	23
TranStar Airlines	1987	24
Frontier Airlines	1986	25
Pride Air	1985	26
Wien Air Alaska	1984	27
Air Florida	1984	28
Pacific Express	1984	29
Altair Airlines	1982	30
Braniff International Airlines #1	1982	31

Note: Failed without a merger into another airline.

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EXHIBIT 1: CURRICULUM VITAE

CURRICULUM VITAE
MICHAEL E. LEVINE

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EDUCATION

Law and Economics Fellow, University of Chicago Law School, 1967-68

Graduate Studies in Economics, Yale University, 1964-65

J.D., 1965, Yale University

B.A. (Philosophy), 1962, Reed College, Portland, Oregon

EMPLOYMENT

New York University School of Law, Distinguished Research Scholar and Senior Lecturer, 2005-

Yale Law School, Professor (Adjunct) of Law, 2002-2005

Harvard Law School, Adjunct Professor of Law, 1999-2002

Rohn Industries, Inc., Chairman (non-executive), 1999-2002

Northwest Airlines, Inc., 1992-99. Executive Vice President, Marketing and International, 1994-1999; Executive Vice President, Marketing, 1992-94

Yale School of Management, 1987-92. Dean, 1988-92; General George Rogers Clark Professor of Management Studies, 1987-90; William S. Beinecke Professor of Management Studies, 1990-92

University of Southern California Law Center, 1968-1987. William T. Dalessi Professor of Law, 1985-87; Professor of Law, 1972-84; Associate Professor of Law, 1970-72; Assistant Professor of Law, 1968-70 (on leave, 1972-73, 1977-79, 1981-84)

California Institute of Technology. Henry R. Luce Professor of Law and Social Change in the Technological Society, 1972-83; (joint appointment with USC, on leave 1977-79, 1981-83)

New York Air, President and Chief Executive Officer, 1982-1984

Continental Airlines, Executive Vice President, Marketing, 1981-82

U.S. Civil Aeronautics Board, 1978-79; General Director, International and Domestic Aviation, 1979; Director, Bureau of Pricing and Domestic Aviation, 1978

London School of Economics and Political Science, Academic Visitor, Department of Economics, 1977

University of Chicago Law School, Law and Economics Fellow, 1967-68

Chamber of Commerce of the United States, Special Assistant, Task Force on Economic Growth and Opportunity, 1966-67

Attorney, U.S. Civil Aeronautics Board, 1965-66

U.S. Executive Office of the President, Bureau of Budget, Management Intern (Defense and Foreign Affairs Organization), 1964

OTHER ACADEMIC POSITIONS

Visiting Professor, Interdisciplinary Center, Herzliya, Israel, May, 2006

Visiting Professor, University of Virginia School of Law, March-April 2004

MIT Global Airline Program, Sloan Foundation Industry Center Fellow, 2002-03

Institute of Air and Space Law, McGill University, Visiting Lecturer, 1978

Institute for Advanced Legal Studies, London Visiting Scholar, 1977

Referee for Journal of Law and Economics, Rand Journal of Economics, Journal of Law, Economics and Organization, Harvard University Press, others.

AWARDS

Named one of ten most influential commercial aviation pioneers by Airfinance Journal, 2002

Transportation Research Forum Distinguished Transportation Researcher Lifetime Award, 2000

Civil Aeronautics Board Award for Excellence and Distinguished Public Service, 1979

PUBLIC CONSULTANTSHIPS (selected):

Australian Competition and Consumer Commission, 2004

U.S. Department of Justice, 2001

OECD, 1991-92

U.S. Department of State, 1989-91

Corporation and Consumer Affairs Canada, 1988-89

National Council on Public Works Improvement, 1987-88

Port Authority of New York and New Jersey, 1984-85

U.S. Civil Aeronautics Board, 1977, 1980

U.S. Interstate Commerce Commission, 1980

California Air Resources Board, 1976

National Science Foundation, 1975-77

State of California, Energy Resources Conservation and Development Commission, 1976

Subcommittee on Administrative Practice and Procedure, United States Senate, 1974-75

Commonwealth of Puerto Rico, 1974

MEMBERSHIPS AND POSITIONS OF TRUST

Fellow, National Academy of Public Administration, 1997-

UNR Asbestos Victims Trust, Trustee 1989-, Chairman, 2005-

Reed College, Board of Trustees, 1984-2002

Institut du Transport Aerien, Paris, Board of Directors, 1984-2008

National Academy of Sciences Committee on Airline Service and Safety Since Deregulation, 1989-91

U.S. Aviation Safety Commission, 1987-88

Wenner-Gren Foundation for Anthropological Research, Board of Trustees 1983-89

Association of American Law Schools, Section on Antitrust and Economic Regulation, Executive Council, 1974-78, 1987-91

U.S. Office of Technology Assessment Advisory Panel, Airport and Air Traffic Control System, 1980-81

Environmental Law Reporter, Editorial Advisory Panel, 1971-77

Center for Law in the Public Interest, Board of Trustees, Los Angeles, California 1971-76

PUBLICATIONS IN SCHOLARLY JOURNALS AND BOOKS

Regulation and the Nature of the Firm: The Case of U.S. Regional Airlines, *Journal of Law and Economics* (forthcoming), *NYU Law and Economics Research Paper* No. 11-24 (July 19, 2011)

"Airport Congestion: When Theory Meets Reality", *Yale Journal on Regulation* (Volume 26, Number 1, Winter 2009)

"Airline Alliances and Systems Competition: Antitrust Policy Toward Airlines and the Department of Justice Guidelines", *Houston Law Review*, Symposium 2008.

"Regulation, the Market, and Interest Group Cohesion: Why Airlines Were Not Reregulated", in M. Landy, M. Levin, and M. Shapiro, ed. *Creating Competitive Markets: The Politics of Regulatory Reform* (Brookings, 2007)

"Why Weren't the Airlines Reregulated?", *Yale Journal on Regulation*, Summer, 2006

"Price Discrimination without Market Power", *Yale Journal on Regulation*, Winter, 2002., translated into Spanish and reprinted "*Estudios Publicos*" (Chile) Winter, 2008 (N°111)

"Law and..." in Theory and Practice: The USC Style and Its Influence", *Southern California Law Review*, November, 2000.

"Regulatory Capture", in *New Palgrave Dictionary of Law and Economics* (1998).

"Scope and Limits of Multilateral Approaches to International Air Transport", in *International Air Transport: The Challenges Ahead* (OECD, Paris, 1993).

"Comment" on J. Macey, "Organizational Design and the Political Control of Administrative Agencies," *Journal of Law, Economics and Organization*, March, 1992.

"Airline Deregulation: A Perspective," *Antitrust Law Journal*, Vol. 60, Issue 2, 1991.

Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis" (with Jennifer L. Forrence), *Journal of Law, Economics and Organization*, Fall, 1990.

Comment on Peltzman, "The Economic Theory of Regulation after a Decade of Deregulation", in M. Bailey and C. Winston, ed. *Brookings Papers on Economic Activity (Microeconomics)* (1989).

"Airline Competition in Deregulated Markets: Theory, Firm Strategy and Public Policy," *Yale Journal on Regulation*, May, 1987, reprinted in Mohring, ed. *The Economics of Transportation* (1993).

Le Fonctionnement du Marche des Transports Aeriens aux Etats-Unis apres las Dereglementation: Bilan de Huit Ans d'Experience ["The Behavior of Deregulated Airline Markets in the United States: Evidence from Eight Years' Experience"], translated into French by A. Pappalardo, in *Revue Internationale de Droit Economique*, University of Louvain, March, 1987.

"Regulating the Automobile Industry: Problems and Pseudo-problems," in L. Graymer and F. Thompson, ed. *Reforming Social Regulation* (1982).

"Pricing in International Aviation: Review and Prospects," in H.A. Wassenbergh and H. van Fenema, ed. *International Air Transport in the Eighties* (1981).

"Revisionism Revised? Airline Deregulation and the Public Interest," *Law and Contemporary Problems*, January, 1981.

Discussion of J.C. Panzar, "Regulation, Deregulation, and Economic Efficiency: The Case of the CAB," *American Economic Review* (Papers and Proceedings), May, 1980.

"Communication and Agenda Influence: The Chocolate Pizza Design," (with Linda R. Cohen and Charles R. Plott): in H. Sauerman, ed., *Contributions to Experimental Economics*, Vol. 7. (Tubingen: Mohr, 1978).

"A Model of Agenda Influence on Committee Decisions," (with Charles R. Plott), *American Economic Review*, March, 1978.

"Agenda Influence and its Implications," (with Charles R. Plott), *Virginia Law Review*, May, 1977; reprinted in D. R. Kinder and T.R. Palfrey, *Experimental Foundations of Political Science*, 1993.

"Financial Implications of Regulatory Change in the Airline Industry," *Southern California Law Review*, May, 1976. Earlier version entitled "What are the Financial Implications of Regulatory Change?" appears in *Regulatory Reform and the Federal Aviation Act of 1975* (DOT-TST-76-59).

"Alternatives to Regulation: Competition in Air Transportation and the Aviation Act of 1975," *Journal of Air Law and Commerce*, Autumn, 1975.

"Regulating Airmail Transportation," *Journal of Law and Economics*, October, 1975.

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"Toward Descriptive Grading," *Southern California Law Review*, Spring, 1971.

"Landing Fees and the Airport Congestion Problem," *Journal of Law and Economics*, April 1969; reprinted in Silk, ed. *Readings in Contemporary Economics* (1970).

"Is Regulation Necessary? California Air Transportation and National Regulatory Policy," *Yale Law Journal*, July, 1965: reprinted in L.M. Friedman and S. Macaulay, *Law and the Behavioral Sciences* (1969).

SELECTED PUBLIC AFFAIRS PUBLICATIONS AND SPEECHES

"How Obama Could Introduce a Petrol Tax" (with Mark Roe), *Financial Times*, July 6, 2009

"How Washington Blew GM's Bankruptcy", *Financial Times*, June 1 2009

"Airline Consolidation: How Will It Reshape The Industry? What Does It Mean For Europe?" First Annual Airneth Lecture, Amsterdam, Netherlands, March 11, 2009, http://www.airneth.com/index2.php?option=com_docman&task=doc_view&gid=865&Itemid=15

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1. U.S. Senate, Committee on Commerce, Science, and Transportation, Hearing on the Effects of the American Airlines/TWA Transaction and Other Airline Industry Consolidation on Competition and the Consumer, February 1, 2001.

Deposition Transcripts

1. Deposition of Jeffrey Brundage, October 23, 2012
2. Deposition of Donald Carty, October 15, 2012
3. Deposition of William Compton, January 18, 2013
4. Deposition of John Darrah, November 29, 2012
5. Deposition of Henry Farber, January 22-23, 2013
6. Deposition of Terry Hayes, January 28, 2013
7. Deposition of Michael Palumbo, January 21, 2013
8. Deposition of David Resnick, January 16, 2013
9. Deposition of Rikk Salamat, January 29-31, 2013
10. Deposition of Edwin White, Jr., October 12, 2012

Documents in Record

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2. ALPA 054255-78
3. ALPA 054279-302
4. ALPA 054303-27
5. ALPA 054328-34
6. ALPA 054364-91
7. ALPA 054404-28
8. ALPA 054429-38

9. ALPA 054439-66
10. ALPA 055791-861
11. ALPA 055862-909
12. J-352

Expert Reports

1. Expert Report of Henry Farber, October 12, 2002
2. Expert Report of Rikk Salamat, October 12, 2012

Government Databases

1. Bureau of Economic Analysis, Historical GDP Data
2. Bureau of Labor Statistics, Historical Unemployment Rates and Employment Statistics
3. Department of Transportation, DB1B
4. Department of Transportation, Form 41, Schedule P10
5. Department of Transportation, T100 Stage Length Data

Third Party Databases

1. Airlines For America: Annual Results for US Airlines

Legal Documents

1. *Brady v. Air Lines Pilots Association, Int'l Complaint*
2. *Brady v. Air Line Pilots Association, Int'l Jury Verdict*
3. *Brady v. Air Lines Pilots Association, Int'l Trial Transcript*

Media Articles

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45. Sharkey, Joe, Independence Air Ends: No Bang, Some Whimpers, The New York Times, January 10, 2006
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48. Wall Street Journal, "Business Brief – AMR Corp.: Justice Department to Allow American Air-TWA Merger", 3/19/01
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51. Wikipedia, American Airlines, January 15, 2013
52. Wikipedia, Cleveland Hopkins International Airport, January 25, 2013
53. Wikipedia, Delta Air Lines, January 15, 2013
54. Wikipedia, Lynx Air International, January 15, 2013
55. Wikipedia, New York Air, January 25, 2013
56. Wikipedia, Reno Air, January 25, 2013
57. Wikipedia, Trans World Airlines, January 15, 2013
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Analyst Reports

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3. Neil, Raymond, ING Barings, 6/29/2000, "Airline Consolidation: Short Term Pain for Long Term Gain", 6/29/00, pp. 7
4. Higgins, James, Credit Suisse First Boston, "AMR to purchase TWA, Significant US Airways Assets and 49% of DC Air; Industry Consolidation is Taking Shape", 1/11/01, pp. 2
5. Neil, Raymond, ABN-AMRO, May 2001, "The Four Horsemen of the Apocalypse Plague the Airlines", May 2001, pp. 16-17

Other Documents

1. *American Airlines, Inc. v. Allied Pilots Association*, 53 F. Supp. 2d 909 (N.D. Tex. 1999)
2. Michael H. Cimini, Profile of the American Pilots' Sickout, Bureau of Labor Statistics Compensation and Working Conditions, Winter 1999, pp. 21-26.

3. *Fortune* Magazine Fortune 500 lists
4. Karabu Ticketing Agreement
5. Official Airline Guide, Published Air Schedules, June 1981, 1985, 1990, 1995, 2000, 2001, 2002, 2003, 2004, 2005, 2010, 2012
6. Statistical Abstract of the United States, 1949, 1952, 1962, 1972, 1982-83, 1992, 2002, and 2012 editions.

Public Filings

1. Airtran Holdings, Inc., 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K, 1999 Form 10-K/A
2. Alaska Air Group, Inc., 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K
3. America West Airlines, Inc., 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K
4. AMR Corporation, 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K, 2000 Form 10-K, 2001 Form 10-K, 2002 Form 10-K, 2003 Form 10-K, 2004 Form 10-K, 2005 Form 10-K, 2006 Form 10-K, Mar. 31, 1999 Form 10-Q, Jun. 30, 2001 Form 10-Q
5. Continental Airlines, Inc., 1995 Form 10-K, 1995 Form 10-K/A #1, 1995 Form 10-K/A #2, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K
6. Delta Air Lines, Inc., 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K, 1999 Form 10-K/A, 2000 Form 10-K
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11. US Airways Group, Inc., 1995 Form 10-K, 1996 Form 10-K, 1997 Form 10-K, 1998 Form 10-K, 1999 Form 10-K
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TWA Bankruptcy Documents

1. January 10, 2001 Affidavit of Michael J. Palumbo, Executive Vice President and CFO of the Debtors in Support of First Day Motions
2. January 10, 2001 Motion of the Debtors for an Order Pursuant to Sections 105(a), 363, and 1146(c) of the Bankruptcy Code (i) Authorizing the Debtors' Sale of Substantially All of Their Assets, Free and Clear of Liens, Claims, and Encumbrances, Subject to Higher and Better Offers (ii) Approving and Asset Purchase Agreement; and (iii) Approving the Assumption and Assignment of Certain Executory Contracts and Unexpired Leases in Connection with Such Sale

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7. March 10, 2001 Hearing Transcript
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